SECTION 8

CLOSEOUT PROCEDURES

8-1. General. This section provides procedural information on accomplishing operable unit completion, construction completion, site completion, and site deletion. This guidance applies only to those sites that are on the NPL. Additional guidance on closeout and 5-year review of sites is provided in the following documents:

a. OSWER Directive 9320.2-09A-P, "Close Out Procedures for National Priorities List Sites", January 2000.

b. OSWER Directive 9355.7-02, "Structures and Components of Five-Year Reviews;" and

c. OSWER Directive 9355.7-03B-P, "Comprehensive Five-Year Review Guidance;"

8-2. Definitions.

a. Section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), requires EPA to maintain a National Priorities List (NPL) on uncontrolled hazardous waste sites that have released or pose a threat of release of hazardous substances into the environment. Sites on the NPL are eligible for Superfund-financed remedial actions.

b. Superfund addresses NPL sites through early and long-term actions using removal and/or remedial authority. **Early actions** are cleanup actions that take less than five years to complete. They achieve prompt risk reduction and are performed under either removal or remedial authority. Cleanup actions that take more than five years to implement are called long-term actions. Long-term actions are conducted under remedial authority and achieve risk reduction through more extensive remediation activities.

c. Cleanup activities under remedial authority are called remedial actions (RA). An RA typically begins at an NPL site after completion of the remedial investigation/feasibility study (RI/FS). The RI/FS determines the nature and extent of contamination, and identifies alternatives for the remedy. EPA's Record of Decision (ROD) documents the remedial activities selected to achieve protectiveness. RAs are designed to protect human health and the environment, and they include treating, containing, and removing contaminated material; providing alternate water supplies; and/or imposing institutional controls that address site use.

Treatment that reduces waste toxicity, mobility, or volume is the preferred cleanup action. However, not all the waste needs to be treated or removed as long as protectiveness is achieved.

d. A Superfund site may require several RAs to address all the site hazards. In that case, the site is divided into distinct segments known as operable units. Completion of an operable unit (OU) can be achieved through early actions, long-term actions, or a combination of both.

e. Long-Term Remedial Actions (LTRAs) are typically response actions undertaken for restoring ground or surface water quality and require a long period of operation and maintenance.

f. EPA introduced the site construction completion date to capture a milestone in site remediation prior to site deletion and to communicate more accurately the progress of NPL site cleanups. Construction completion at a site occurs when: (1) the physical construction of the last OU (or the single OU) is complete (whether or not final cleanup levels have been achieved), and (2) the preliminary closeout report has been prepared and signed. The signature date of the report marks the construction completion milestone date. Construction completion criteria are satisfied when the final remedy or remedies have been constructed at the site in accordance with design plans and specifications and a pre-final inspection has been conducted to document punch list items. The punch list items (in this context) are described as activities that are part of the contract specifications that do not affect the functioning of the remedy. Typical punch list items that allow a construction completion determination include items such as: revegetation of disturbed areas, removing construction debris, installing support equipment such as fire extinguishers, demobilizing activities, installing monitoring wells, etc.

g. A remedy becomes operational and functional (O&F) when the remedy is determined to be functioning properly and is performing as designed. For O&M transfer purposes, the remedy becomes operational and functional either one year after the construction is accepted (the one year period is known as the shake down period) or when EPA and the state concur that it is performing as designed, whichever occurs first. The shake down period enables minor modifications in the remedy to ensure the remedy is operating as designed.

h. Remedial Action Report (RA). The RA Report documents the cleanup activities that took place at a single operable unit and is prepared upon completion of the shake down period (when the remedy is determined to be operational and functional). For multiple OUs, an RA report must be completed for each OU, including the final operable unit. For LTRAs, an interim RA Report is prepared when the physical construction of the system is complete and the OU is operating as designed. The report is amended and completed when the LTRA cleanup standards specified in the ROD are achieved. The RA report includes information of all early and long-term actions within the OU. In addition, it documents that the cleanup standards specified in the Record of Decision (ROD) have been met. At PRP-Lead sites, the RA report also certifies that the requirements in all applicable enforcement documents have been satisfied. The RA report

becomes part of the site completion documentation. The elements of the RA report are as follows:

(1) Description of the site and remedies selected;

(2) Chronology of events;

(3) Performance standards and construction quality control;

(4) Construction activities;

(5) Final inspection;

(6) Certification that the remedy is O&F;

(7) O&M plan; and

(8) Summary of project costs.

i. Operation and maintenance (O&M) activities are performed to protect the integrity of the remedy at the site. At fund-lead sites, the state performs O&M after the remedy is declared to be operational and functional. Exceptions to this are LTRAs where EPA operates the system for up to 10 years.

j. Site completion occurs when no further response is required at the site (except for O&M activities that are performed or controlled by the state or responsible parties), the constructed remedies are operational and performing according to engineering design specifications, all cleanup goals have been achieved, and the site is deemed protective of human health and the environment. When site completion requirements are achieved the RPM prepares a draft Final Closeout Report (COR). The RPM sends the draft report to EPA Headquarters for comments, and requests the Regional Administrator's signature of the final report after incorporating Headquarters' comments. Once site completion is achieved, the site becomes a candidate for NPL deletion.

k. When no further response is required after site completion, the site is eligible for deletion from the NPL. This stage is known as site deletion. Essentially, this process entails documenting the response activities for the site, verifying that activities have been conducted and documented, and offering the public an opportunity for notice and comment before the site is formally deleted from the NPL.

l. Preliminary Closeout Report. A Preliminary Closeout Report (PCOR) is required when site construction completion is achieved prior to site completion (i.e., when cleanup levels

specified in the ROD have not been met when construction completion is achieved). The PCOR demonstrates and documents that construction at a site has been completed. The PCOR focuses on site conditions, construction activities, construction QA/QC, and a detailed schedule of steps remaining for site completion. The report is prepared by the EPA RPM and is sent to EPA Headquarters for comments. After incorporating Headquarters' comments and obtaining the signature of the EPA Superfund Regional Division Director, the report is forwarded to EPA Headquarters. The construction completion milestone is achieved on the date the PCOR is signed. A PCOR may not be needed when construction and site completion are achieved simultaneously. In these cases, the Final Closeout Report satisfies documentation requirements for both events.

m. Final Closeout Report. When site completion requirements are achieved, a Final Closeout Report is prepared. The final COR consolidates the results of all previous site activities and ensures that all issues regarding site completion have been addressed (e.g., O&M assurances, cleanup concentrations, and implementation of institutional controls).

8-3. <u>Operable Unit Completion Milestone.</u>

a. Operable unit completion is achieved when:

(1) All construction activities within the OU are complete;

(2) The contractual final inspection (attended by EPA, state, customer, etc. has been conducted and the work has been accepted;

(3) The remedy is operational an functional; and

(4) The designated regional or state official signs a letter accepting the RA Report.

b. The NCP requires an additional set of inspections at fund lead sites to satisfy the operable unit completion milestone criteria. An inspection is conducted jointly by EPA and the state at the end of all construction activities to concur that the remedy has been constructed in accordance with the ROD and the remedial design. This inspection can be conducted in conjunction with the contractual final inspection. This requirement applies mostly to sites requiring O&M. During this inspection, EPA and the state determine concurrently the beginning of the shake down period or O&M testing period. The remedy becomes operational and functional either one year after the construction is accepted or when the EPA and the state concur that the remedy is performing as designed, whichever occurs first. In the latter case, the NCP requires an additional EPA/state joint inspection to declare the remedy operational and functional.

c. Normally, the primary contracting/oversight party is tasked with preparing the RA report. For USACE projects, this responsibility will be included in the work assignment or the Interagency Agreement (IAG). The RA report is prepared by an individual who is familiar with both the design and construction efforts associated with the RA (usually the RE) and should be signed and dated by the preparer. The report will then be submitted to the RPM for review and comment. Once the RPM's comments are incorporated, the designated regional official signs a letter accepting the final RA Report.

d. For LTRAs, an interim RA Report is prepared when the construction of the system is complete and the unit is operating as designed. The report is amended and completed when the LTRA cleanup standards specified in the ROD are achieved.

e. Completion of the final operable unit frequently means the site is eligible for construction completion and eventually site completion. Initiation of the operable unit completion and construction completion process can be simultaneous requiring the preparation of many reports. However, an RA Report for the final operable unit must still be prepared.

8-4. Construction Completion Milestone.

a. When the physical construction at the NPL site is complete, the RE will assist the EPA RPM in completing the PCOR report by providing any requested documentation, information and data.

b. NPL sites that are fully addressed by early actions under removal authority (i.e., removal actions) can meet the construction completion and site completion simultaneously. In such cases, a PCOR may not be needed. The Final Closeout Report can satisfy documentation requirements for both events.

c. Construction completion criteria at LTRAs sites is met when the physical construction of the remedy (e.g., construction of the treatment plant, pumps, and initial extraction wells) is complete and a pre-final inspection has been conducted to document punch list items. The PCOR should address five-year review requirements even though this milestone is independent from site completion and site deletion.

d. The process of achieving construction completion for final OUs with bioremediation and in-situ soil vapor extraction remedies is similar to that for LTRAs. When the remedy is constructed, and no further construction is anticipated, these sites may qualify for inclusion on the Construction Completion List. The key criterion is whether the follow-on work necessary to operate the remedy is minor. If significant post construction activity is likely, the site is not candidate for construction completion.

e. A site may be included in the Construction Completion List before monitoring

activities or institutional controls are in place if those activities are included in the PCOR. Although future RAs may or may not result from such monitoring, the need for monitoring (as long as it is not significant or is considered part of O&M activities) does not prohibit listing a site as a construction completion. Institutional controls are legal and administrative measures to prevent exposure to contaminants at concentrations above health-based risk levels that may remain at a site. Usually institutional controls limit activities at or near sites. Examples are: land and natural resource restrictions, deed restrictions, prohibition of well drilling, building permits, etc. Institutional controls may constitute a remedy by themselves or supplement containment and treatment remedies to reduce potential threats to human health and the environment.

f. If the site is a No-Action ROD site where EPA has not previously undertaken a RA, the construction completion and site completion milestones may be achieved when the ROD is signed. A No-Action ROD results when the lead agency determines that no remedial action is necessary to protect human health and the environment. If the site is a No-Action ROD site, no Preliminary or Final COR is needed and the following certification of completion is included in the declaration section of the No-Action ROD: "EPA has determined that its response at this site is complete and no action/no further action is necessary at this site. Therefore, the site now qualifies for inclusion on the Construction Completion List."

g. No-Action RODs where EPA has previously conducted RAs triggers statutory documentation requirements. At those sites, the RPM may choose to either prepare a Final COR or a No-Action ROD that: (a) Incorporates the information normally included in the Final COR and (b) includes the above certification of completion. The construction completion and site completion milestones are achieved upon signature of either the No-Action ROD or the Final COR.

h. A site with a final operable unit ROD requiring passive remediation only may achieve construction completion when the delegated regional official approves the ROD. Implementation of institutional controls is an example of passive remedies as are some types of bioremediation and natural attenuation. No-Action RODs requiring monitoring only (for other than O&M purposes) fall within this category. These No-Action RODs do not meet the requirements of construction completion and site completion simultaneously as site completion is not achieved until such time as all cleanup levels and other ROD requirements have been met. The RPM does not need to prepare a PCOR to meet the construction completion criteria. Instead, the following certification of completion is placed in the declaration section of the ROD: "EPA has determined that its future response at this site does not require physical construction. Therefore, the site now qualifies for inclusion on the Construction Completion List."

i. Construction completion criteria for PRP projects are identical to those for fund lead projects. Inclusion of a site on the Construction Completion List does not have any legal significance and does not affect any enforcement agreement with PRPs.

j. Construction completion procedures for Federal sites are identical to those for PRP-financed RAs. A signed PCOR or No-Action ROD generally documents construction completion.

k. For state-lead sites with no ROD and sites where the state assumes all responsibility for overseeing PRP response actions, additional documentation is required. EPA includes these sites on the Construction Completion List based on a determination by the state that all response action is complete. To initiate the construction completion process, EPA must receive a letter from the state's Division Director (or equivalent) certifying completion as follows: "The state of _____ has determined this site is protective of human health and the environment. Therefore, all response action at this site is complete and no further construction is anticipated." In most instances, the state prepares the PCOR and EPA concurs with this decision by signing the PCOR and by including the site in the Construction Completion List.

8-5. Site Completion. A site is eligible for site completion following successful implementation of the final operable unit RA. Approval of the final COR signifies that all cleanup levels specified in the RODs have been achieved and the site has entered O&M. A Remedial Action Report for each operable unit, including the final, is required to document that the work was performed according to design specifications. An RA report, however, cannot document site completion. Only the Final COR satisfies completion requirements. The following describes NPL site completion requirements for cleanup activities under removal and remedial authority:

a. NPL sites addressed entirely by early actions under removal authority reach the construction completion and site completion simultaneously when: (1) the RPM documents in the final Pollution Report (POLREP) that the site contractor has demobilized and left the site or that the PRP's contractor has completed the early action in accordance with the enforcement document, and (2) a No-Action ROD or a Notice of Intent to delete (NOID) states that all necessary remediation is complete. In general, cleanup actions under removal authority will not have a ROD.

c. Sites addressed under remedial authority are eligible for site completion when all early and long-term actions have been implemented and the site completion criteria are met. When site completion requirements are achieved, the RPM prepares a draft final COR. The RPM sends the draft report to EPA Headquarters for comments and requests the Regional Administrator's signature of the final COR (after incorporating Headquarters' comments). If the ROD for the final operable unit requires no additional cleanup activities, site completion can be documented through either a final COR or a No-Action ROD. The No-Action ROD, however, should address all the components of a final COR including information on previous site activities. RODs requiring passive remediation or monitoring for other than O&M purposes do not meet the site completion criteria immediately following the ROD signature. Once the

institutional controls are in place, natural attenuation has reached the clean-up concentrations, or all monitoring requirements specified in the ROD are met, the site is eligible for site completion and site deletion. If a site requires no response action, the EPA RPM prepares either a No-Action ROD or a final COR (in an abbreviated form because there was no cleanup activities).

c. The final COR provides the overall technical justification for site completion. Usually the RPM prepares the final COR, but the RPM may task the state to prepare it at state-lead sites.

8-6. Site Deletion.

a. The NPL deletion process begins at most sites once the site completion milestone has been achieved. Site deletion requirements ensure that: (1) the documentation of activities and decision making at the site is complete, (2) the activities conducted and documented are verified, and (3) the public has an opportunity for notice and comment before a site is formally deleted from the NPL. O&M activities which are performed (after the remedy is determined to be operational and functional) to protect the integrity of the remedy at the site do not bar deletion. LTRAs meet the requirements of site completion and site deletion when the LTRA cleanup standards specified in the ROD are achieved.

b. The deletion process is divided into three steps: process initiation, publication of Notice of Intention to Delete, and preparation of a responsiveness summary.

c. The following flow diagram (Figure 8-1) summarizes the CERCLA NPL Site Closeout Process.

NPL SITE CLOSEOUT PROCESS

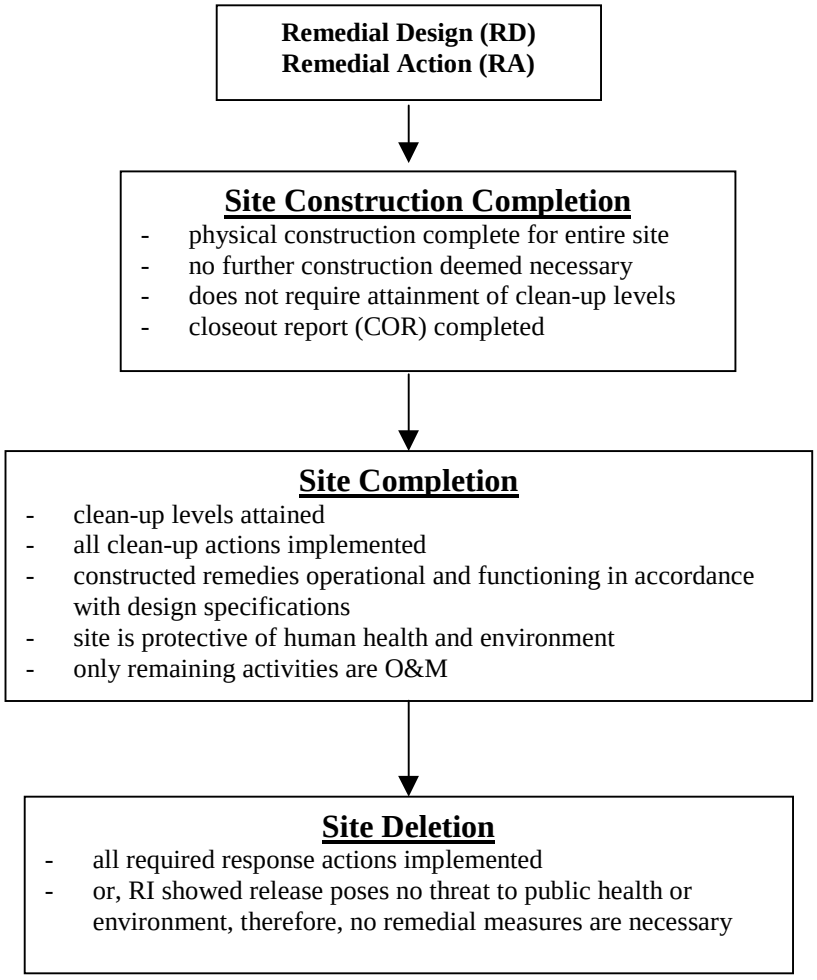

Figure 8-1, NPL Site Closeout Process

8-7. Five-Year Review Program.

a. Sites Subject To Review. EPA will conduct a statutory review at any site at which a Post-SARA remedy, upon attainment of the cleanup levels, will not allow unlimited use and unrestricted exposure (i.e., the remedy will leave waste onsite after response is complete). EPA will conduct a policy review of (1) sites where no hazardous substances will remain above levels that allow unlimited use and unrestricted exposure after completion of the RA, but the cleanup levels specified in the ROD will require five or more years to attain (such as LTRAs); and (2) pre-SARA sites at which the remedy, upon attainment of the ROD cleanup levels, will not allow

unlimited use and unrestricted exposure. Although a site may have a No-Action ROD or a no further action ROD, if waste remains onsite, and continued monitoring and/or access and institutional controls are required, the site is subject to five-year review.

b. Timing. The events that trigger reviews differ for statutory and policy reviews. Statutory reviews are triggered by the initiation of the RA (actual RA onsite construction start date); policy reviews are now triggered by construction completion. All subsequent statutory and policy reviews are due five years after the completion date of the previous review. If a site has multiple OUs, the triggering event for a statutory review is the initiation of the RA at the first OU at which substances will remain above levels that allow for unlimited use and unrestricted exposure after completion of the RA. In cases where separate five-year review reports are written for different OUs, the trigger appropriate to that OU should be used.

c. Prioritization. If an EPA Region has a backlog of uncompleted reviews the region should prioritize them. The first priority should be for all statutory five-year reviews, the second priority should be policy five-year reviews at sites where the lead agency has completed the RA and is no longer onsite, and third priority should be all remaining policy sites.

d. Discontinuation. CERCLA does not provide for the discontinuation of statutory reviews. Sites are subject to statutory reviews if hazardous substances, pollutants or contaminants will remain at the site above levels that allow for unlimited use and unrestricted exposure after the completion of RA. In other words, if the remedy upon completion will not meet health-based standards such as chemical-specific ARARs, five-year reviews cannot be discontinued. EPA may discontinue policy five-year reviews when no hazardous substances, pollutants or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure. Upon determination that a five-year policy review is no longer necessary, a cover letter from the Regional Administrator to EPA Headquarters should accompany the five-year review report, stating that the region has decided to discontinue reviewing the site. The report should document that contaminants of concern are below appropriate levels and that the remedy meets ARARs.

e. Deletion of Sites From the NPL. Deletion of a site from the NPL has no bearing on whether or not five-year reviews can be discontinued. It is EPA's policy to delete sites from the NPL when applicable NPL deletion criteria have been satisfied. EPA will not retain sites on the NPL solely because they are subject to five-year review. The five-year review requirement is separate from, and unaffected by, the deletion process. Sites requiring a five-year review must have that review regardless of whether they are still on the NPL.

f. Responsibility for Five-Year Reviews. EPA is responsible for the conduct of all five-year reviews of NPL sites, except those sites under the responsibility of DOD, DOE, or the Coast Guard. For other Federal facilities where EPA and the pertinent agency or department has entered into a site-specific Federal Facility Agreement (FFA), EPA may delegate the conduct of

five-year reviews to that agency or department. Federal agencies are responsible for planning and funding the costs of five-year reviews at Federal facilities under their jurisdiction, custody, and control. When EPA incurs substantial expenses (e.g., for data review and analysis, or oversight) in connection with a five-year review being conducted pursuant to a FFA, that agreement may require or otherwise set forth, the procedure for the other Federal agency to reimburse EPA for those expenses. EPA has the final responsibility to review and comment on any Federal agency recommendations contained in the five-year review to ensure protectiveness consistent with its statutory and regulatory duties. Thus, even if EPA has delegated its conduct of a five-year review to a Federal facility, EPA remains responsible for ensuring the remedy is protective of human health and the environment. In most cases, EPA will maintain a limited oversight and concurrence role where it is not the lead Federal agency. In the absence of an agreement specifying which agency should perform the review, the responsibility for conducting the review rests with the EPA.

g. Overview of the Five-Year Review Process. The five-year review process is summarized in the following steps: (1) planning for the review which includes assembling the five-year review team, establishing a schedule, notifying the site manager/local authorities, and obtaining site documents; (2) as part of a five-year review, a number of documents are typically reviewed. These include the examination of ROD or equivalent remedial and enforcement documents, O&M documents, legal and regulatory standards, toxicology databases, and other scientific data; (3) interviews conducted with individuals and groups such as the O&M Site Manager, O&M staff, local authorities and response agencies, community action groups, and other stakeholders. The interviews should address any problems or successes with the implementation of the remedy and provide suggestions for future reference; (4) a site visit to observe site conditions and review documents at the site; (5) evaluation of findings - information gathered through document reviews, interviews, site visits and other review activities are used to develop conclusions supporting the protectiveness determination, identify deficiencies, and develop recommendations; (6) a report is prepared for each five-year review. The report documents whether the remedy remains protective of human health and environment and what actions are needed to achieve or continue to assure protectiveness; (7) follow-up on recommendations - the five-year report includes recommended actions necessary to achieve or continue to assure protectiveness and a timetable for implementing them. The EPA regions follow-up on the implementation of recommended actions, and report progress to EPA HQ within one year of the signature date of the five-year review report; and (8) involving the community - EPA informs the public when a five-year review is to be performed and initiates community involvement in the five-year review process.